Cisco MCS 7845-I3

Cisco® Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks, enabling easy collaboration every time from any workspace.

The Cisco MCS 7845-I3 Media Convergence Server is a high-availability server platform for Cisco Unified Communications Solutions. An integral part of a complete, scalable architecture for a new generation of high-quality IP voice solutions that run on enterprise data networks, the Cisco MCS 7845-I3 delivers the high performance and availability demanded by today's enterprise networks—and it is easy to deploy and highly cost-effective. At only 2 rack units (2RUs) high, the Cisco MCS 7845-I3 offers tremendous power in a low-profile chassis that minimizes rack space.

Supported Applications

The Cisco MCS 7845-I3 can run any of the following Cisco applications:

- Cisco Unified Application Environment
- Cisco Unified Communications Manager (formerly known as Cisco Unified CallManager): Up to 7,500 Cisco Unified IP Phones per server
- Cisco Emergency Responder: Up to 30,000 Cisco Unified IP Phones per server
- Cisco Unified Presence
- Cisco Unified Intelligent Contact Management Enterprise and Hosted
- Cisco Unified Contact Center Enterprise and Hosted
- Cisco Unified Contact Center Express
- Cisco Unified IP Interactive Voice Response (IP IVR)
- Cisco Unified Customer Voice Portal (CVP)
- Cisco Unified Intelligence Suite
- Cisco Unified E-mail Interaction Manager and Unified Web Interaction Manager
- Cisco Unified Contact Center Management Portal
- Cisco Unified MeetingPlace® conferencing
- Cisco Unified MeetingPlace Express
- Cisco Unity® meeting solutions
- Cisco Unity Connection
- Cisco Unified Videoconferencing

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Key Features and Benefits

Performance

The Cisco MCS 7845-I3 is a robust, highly available server platform designed to support today's unified communications applications. It includes such innovations as variable-speed fan support, Light Path Diagnostics, and memory with Chipkill ECC (Error Checking and Correction) protection. The Cisco MCS 7845-I3 occupies only 2RU rack space while providing the features most requested in a high-availability server platform.

High Availability

High availability on the Cisco MCS 7845-I3 is achieved through the following mechanisms:

- Redundant hot-swap 675W power supplies increase system uptime by eliminating another point of failure with a second hot-swap power supply.
- Hot-swap Serial Attached SCSI (SAS) hard drives are configured using Redundant Array of Independent Disks (RAID) 1.
- Redundant hot-swap fans allow the server to continue to operate even with a fan failure and allow for fan replacement without taking the server offline.
- An integrated management module (IMM) increases server availability by continuously monitoring the system and providing secure alerts and status, thereby ensuring maximum uptime.

Memory

The Cisco MCS 7845-I3 supports a maximum of 128 GB of double-data-rate 3 (DDR3) memory, which implies up to 16 GB per core or 64 GB per CPU socket. By matching the high-performance speed of the Intel Xeon 5500 Series processor with new-generation, high-performance DDR-3 registered dual-inline-memory-module (RDIMM) memory, performance is improved by transmitting 8 bits of data in one clock cycle while lowering the power required for the memory by 17 percent over the previous generation of memory thermal design.

Variable-Speed Fan Support

The Cisco MCS 7845-I3 includes variable-speed fans to reduce operating noise. Through the use of temperature sensors within the server, the speed of the fans is adjusted to maintain the proper cooling, reducing the noise generated by the fans by operating them only when required and at a speed based upon the cooling requirements.

Serviceability

Light Path Diagnostics

The Cisco MCS 7845-I3 is equipped with Light Path Diagnostics, which provides a central information LED panel (visible without removing the cover) and individual LED lights throughout the system on items such as DIMM modules, peripheral-component-interconnect (PCI) slots, power supplies, and CPUs. IT can quickly view system status, and service personnel can pinpoint a specific failing component, helping reduce downtime and service costs. This capability provides increased availability, because nontechnical personnel can report error conditions without removing the top cover and exposing vital components to further risk. If the system-error LED on the front of the server is on, one or more LEDs inside the server or on the power supply will be on. These LEDs help identify and locate problems with some server components. By following the path of lights, you can quickly identify the type of system error that occurred. The Cisco MCS 7845-I3 is designed so that any LEDs that are illuminated remain illuminated when the server shuts down as long as the AC power source is good and the power supply can provide +5 VDC to the server.

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Light Path Diagnostics provide indication of failures for the following conditions:

- One or both power supplies consuming power higher than maximum rating
- Power supply failure
- Failure of one or both processors
- Hardware configuration error
- Memory error
- Nonmaskable interrupt
- Error on the system board
- Service processor failure (IMM)
- Error on adapter on PCI slots
- Hard disk error
- Fan failure or slow operation
- System temperature exceeded maximum rating

Remote Management

The included Virtual Media key coupled with the advanced IMM provides for 24-hour remote management capability.

Tape Drive Support

The Cisco MCS 7845-I3 can support an optional 36-/72-GB USB external Digital Audio Tape (DAT) drive (part number DAT-USB-EXT-72=) or an optional USB rack-mount DAT drive (part number DAT-USB-RM-72=). This tape drive connects through one of the USB 2.0 ports provided by the Cisco MCS 7845-I3.

Product Specifications

Tables 1 through 5 list the Cisco MCS 7845-I3 bare metal and appliance configurations, and Table 6 gives information about previously released configurations.

Table 1. Currently Shipping Configuration with Single Processor and 146-GB Hard Drives

Current Component	Current Value
Product part number	MCS-7845-I3-CCE1 MCS-7845-I3-CCX1 MCS-7845-I3-IPC1 MCS-7845-I3-RC1
Preload	None
OS included	None
Processor	Single Intel 5540 Quad-core 2.53-GHz; last level cache: 8 MB or Single Intel Xeon E5630 Quad-core 2.53-GHz
Memory included	6-GB (three 2-GB DIMM) PC3-10600 1333-MHz, fully buffered double-data-rate 3 (DDR-3) RDIMM
Memory maximum	128 GB (64 GB per processor slot)
Memory bus clock	Up to 1333 MHz
Memory technology	Registered PC3-10600 DDR-3 1333-MHz dual-rank DIMM
Multibit error mitigation	Advanced Chipkill Error Checking and Correcting (ECC)
Total DIMM slots	16 (8 per processor slot)
Basic input/output system (BIOS) type	United Extensible Firmware Interface (UEFI)
Hard disks	Four 146-GB SAS 2.5-in. hot-swap
Hot-swappable bays	8

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Hard disk interface type	SAS	
Hard disk spindle speed	10,000 revolutions per minute (rpm)	
Hard disk seek time	4 ms (average)	
Hard disk latency	3 ms (average)	
Data transfer rate	Capable of 6 Gbps	
Hard disk form size	2.5-inch SFF	
RAID controller model	IBM mezzanine ServeRAID MR10i controller	
RAID interface	Connected to motherboard	
RAID cache	256 MB	
Battery-backed write cache (BBWC)	Yes	
RAID level	Configured as two RAID 1 arrays	
Ethernet network interface card (NIC)	Dual onboard 10/100/1000	
Ethernet connectors	Two RJ-45 connectors on back of server	
10BASE-T cable support	EIA Category 3, 4, or 5 unshielded twisted pair (UTP) (2 or 4 pair) up to 328 ft (100m)	
100BASE-TX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)	
1000BASE-T cable support	EIA Category 6 UTP (recommended), 5E UTP, 5 UTP (2 pair) up to 328 ft (100m)	
Serial ports	1	
Parallel ports	0	
USB 2.0 ports	6 (2 front, 2 rear, and 2 internal)	
Keyboard ports	Use one of the USB ports (PS/2 ports are not provided)	
Mouse ports	Use one of the USB ports (PS/2 ports are not provided)	
Audio ports	None	
Video Graphics Array (VGA) ports	1 front and 1 rear	
System management ports	RJ-45 for integrated management module (IMM)	
8x PCIe non-hot plug slots	4	
Dimensions (H x W x D)	Height: 3.346 in.	Height: 85.2 mm
	Width: • With top cover: 17.465 in. • With front bezel: 18.976 in.	Width: • With top cover: 443.6 mm • With front bezel: 482.0 mm
	Depth: • EIA flange to rear: 27.480 in. • Overall: 28.791 in.	Depth: • EIA flange to rear: 698 mm • Overall: 729 mm
Weight (maximum)	64 lb	29.03 kg

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Input requirements*	Rated line voltage: 100–127 VAC; 50 or 60 Hz	
	Input current (amps)	1.31 (idle) 2.25 (maximum measured) 7.8 (system rated) 60 (peak inrush current; 4 ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	154 (idle) 257 (maximum measured) 780 (system rated)
	VA rating (VA)	157 (idle) 263 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	525 (idle) 875 (maximum measured) 2661 (system rated)
	Rated line voltage: 200–240 VAC; 50 or 60 Hz	
	Input current (amps)	0.74 (idle) 1.23 (maximum measured) 3.9 (system rated) 60 (peak inrush current; 4 ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	151 (idle) 251 (maximum measured) 780 (system rated)
	VA rating (VA)	154 (idle) 257 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	515 (idle) 855 (maximum measured) 2661 (system rated)
Power supply output power	Rated steady-state power	675W
Temperature range	Operating	50 to 95°F (10 to 35°C) at 0–3000 ft (0–914.4m) with an altitude de-rating of 1.4°F (0.75°C) per 1000 ft (304.8m)
	Nonoperating	50 to 109.4°F (10 to 43°C)
	Shipment	–40 to 140°F (–40 to +60°C)
Relative humidity (RH; noncondensing)	Operating Shipment	8 to 80% 5 to 100%
Maximum altitude	7000 ft	2133m
Acoustic noise	Operating minimum	L WAd (bels) 6.5
Airflow (cubic feet per minute)	30 CFM minimum	75 CFM maximum
Remote management	IBM IMM with Virtual Media enabled	

* Maximum measured values were determined with 25ºC ambient temperature, and your results may vary.
* Idle power: Power drawn with the machine(s) logged into the OS, and no other applications running. Memory, HDDs, optical drives, and tape drives are not being used.
* Measured maximum power: Maximum measured power is the power drawn by the machine with the CPUs 100-percent used and memory is used 10 percent more than base usage. The exerciser used is Prime95 (torture test) and can be downloaded from www.mersenne.org.
* Rated system maximum: The maximum power able to be drawn by the machine according to the system label rating.

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Table 2. Currently Shipping Configuration with Dual Processor and 300-GB Drives

Current Component	Current Value
Product part number	MCS-7845-I3-ECS1 MCS-7845-I3-CCE2 MCS-7845-I3-CCX2 MCS-7845-I3-MOB1
Preload	None
OS included	None
Processor	Dual Intel E5540 2.53-GHz; last level cache: 8 MB
Memory included	8-GB (four 2-GB DIMM) PC3-10600 1333-MHz, fully buffered DDR-3 RDIMM
Memory maximum	128 GB (64 GB per processor slot)
Memory bus clock	Up to 1333 MHz
Memory technology	Registered PC3-10600 DDR-3 1333-MHz dual-rank DIMM
Multibit error mitigation	Advanced Chipkill ECC
Total DIMM slots	16 (8 per processor slot)
BIOS type	UEFI
Hard disks	Four 300-GB SAS 2.5-in. hot-swap
Hot-swappable bays	8; optionally expandable to 12 bays using IBM extra kit
Hard disk interface type	SAS
Hard disk spindle speed	10,000 rpm
Hard disk seek time	4 ms (average)
Hard disk latency	3 ms (average)
Data transfer rate	Capable of 6 Gbps
Hard disk form size	2.5-inch SFF
RAID controller model	IBM mezzanine ServeRAID MR10i controller
RAID interface	Connected to motherboard
RAID cache	256 MB
BBWC	Yes
RAID level	Configured as two RAID 1 arrays
Ethernet NIC	Dual onboard 10/100/1000
Ethernet connectors	Two RJ-45 connectors on back of server
10BASE-T cable support	EIA Category 3, 4, or 5 UTP (2 or 4 pair) up to 328 ft (100m)
100BASE-TX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)
1000BASE-T cable support	EIA Category 6 UTP (recommended), 5E UTP, 5 UTP (2 pair) up to 328 ft (100m)
Serial ports	1
Parallel ports	0
USB 2.0 ports	6 (2 front, 2 rear, and 2 internal)
Keyboard ports	Use one of the USB ports (PS/2 ports are not provided)
Mouse ports	Use one of the USB ports (PS/2 ports are not provided)
Audio ports	None
VGA ports	1 front and 1 rear
System management ports	RJ-45 for IMM
8x PCIe non-hot plug slots	4

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Dimensions (H x W x D)	Height: 3.346 in.	Height: 85.2 mm
	Width: • With top cover: 17.465 in. • With front bezel: 18.976 in.	Width: • With top cover: 443.6 mm • With front bezel: 482.0 mm
	Depth: • EIA flange to rear: 27.480 in. • Overall: 28.791 in.	Depth: • EIA flange to rear: 698 mm • Overall: 729 mm
Weight (maximum)	64 lb	29.03 kg
Input requirements*	Rated line voltage: 100–127 VAC; 50 or 60 Hz	
	Input current (amps)	1.81 (idle) 3.07 (maximum measured) 7.8 (system rated) 60 (peak inrush current; 4 ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	213 (idle) 353 (maximum measured) 780 (system rated)
	VA rating (VA)	218 (idle) 362 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	727 (idle) 1206 (maximum measured) 2661 (system rated)
	Rated line voltage: 200–240 VAC; 50 or 60 Hz	
	Input current (amps)	1.1 (idle) 1.84 (maximum measured) 3.9 (system rated) 60 (peak Inrush current; 4 ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	224 (idle) 372 (maximum measured) 780 (system rated)
	VA rating (VA)	229 (idle) 381 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	764 (idle) 1268 (maximum measured) 2661 (system rated)
Power supply output power	Rated steady-state power	675W
Temperature range	Operating	50 to 95℉ (10 to 35℃) at 0–3000 ft (0–914.4m) with an altitude de-rating of 1.4℉ (0.75℃) per 1000 ft (304.8m)
	Nonoperating	50 to 109.4℉ (10 to 43℃)
	Shipment	–40 to 140℉ (–40 to +60℃)
Relative humidity (RH; noncondensing)	Operating Shipment	8 to 80% 5 to 100%
Maximum altitude	7000 ft	2133m
Acoustic noise	Operating minimum	L WAd (bels) 6.5
Airflow (cubic feet per minute)	30 CFM minimum	75 CFM maximum
Remote management	IMM with Virtual Media enabled	

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* Maximum measured values were determined with 25ºC ambient temperature, and your results may vary.
* Idle power: Power drawn with the machine(s) logged into the OS, and no other applications running. Memory, HDDs, optical drives, and tape drives are not being used.
* Measured maximum power: Maximum measured power is the power drawn by the machine with the CPUs 100-percent used, and memory is used 10 percent more than base usage. The exerciser used is Prime95 (torture test) and can be downloaded from www.mersenne.org.
* Rated system maximum: The maximum power able to be drawn by the machine according to the system label rating.

Table 3. Product Information for Cisco Unified Communications Manager Appliances

Current Component	Current Value
Product part number	MCS7845I3-K9-CMD1 MCS7845I3-K9-CMC2 MCS7845I3-K9-CMB2
Preload	CMD1: Cisco Unified Communication Manager 8.0 CMC2: Cisco Unified Communication Manager 7.1 CMB2: Cisco Unified Communication Manager 6.1
OS included	Yes
Processor	Single Intel 5540 Quad-core 2.53-GHz; last level cache: 8 MB
Memory included	6-GB (three 2-GB DIMM) PC3-10600 1333-MHz, fully buffered DDR-3 RDIMM
Memory maximum	128 GB (64 GB per processor slot)
Memory bus clock	Up to 1333 MHz
Memory technology	Registered PC3-10600 DDR-3 1333-MHz dual-rank DIMM
Multibit error mitigation	Advanced Chipkill ECC
Total DIMM slots	16 (8 per processor slot)
BIOS type	UEFI
Hard disks	Four 146-GB SAS 2.5-in. hot-swap
Hot-swappable bays	8
Hard disk interface type	SAS
Hard disk spindle speed	10,000 rpm
Hard disk seek time	4 ms (average)
Hard disk latency	3 ms (average)
Data transfer rate	Capable of 6 Gbps
Hard disk form size	2.5-inch SFF
RAID controller model	IBM mezzanine ServeRAID MR10i controller
RAID interface	Connected to motherboard
RAID cache	256 MB
BBWC	Yes
RAID level	Configured as two RAID 1 arrays
Ethernet NIC	Dual onboard 10/100/1000
Ethernet connectors	Two RJ-45 connectors on back of server
10BASE-T cable support	EIA Category 3, 4, or 5 UTP (2 or 4 pair) up to 328 ft (100m)
100BASE-TX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)
1000BASE-T cable support	EIA Category 6 UTP (recommended), 5E UTP, 5 UTP (2 pair) up to 328 ft (100m)
Serial ports	1
Parallel ports	0
USB 2.0 ports	6 (2 front, 2 rear, and 2 internal)
Keyboard ports	Use one of the USB ports (PS/2 ports are not provided)
Mouse ports	Use one of the USB ports (PS/2 ports are not provided)
Audio ports	None

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VGA ports	1 front and 1 rear	
System management ports	RJ-45 for IMM	
8x PCIe non-hot plug slots	4	
Dimensions (H x W x D)	Height: 3.346 in.	Height: 85.2 mm
	Width: • With top cover: 17.465 in. • With front bezel: 18.976 in.	Width: • With top cover: 443.6 mm • With front bezel: 482.0 mm
	Depth: • EIA flange to rear: 27.480 in. • Overall: 28.791 in.	Depth: EIA flange to rear: 698 mm Overall: 729 mm
Weight (maximum)	64 lb	29.03 kg
Input requirements*	Rated line voltage: 100–127 VAC; 50 or 60 Hz	
	Input current (Amps)	1.31 (idle) 2.25 (maximum measured) 7.8 (system rated) 60 (peak inrush current; 4ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	154 (idle) 257 (maximum measured) 780 (system rated)
	VA rating (VA)	157 (idle) 263 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	525 (idle) 875 (maximum measured) 2661 (system rated)
	Rated line voltage: 200–240 VAC; 50 or 60 Hz	
	Input current (amps)	0.74 (idle) 1.23 (maximum measured) 3.9 (system rated) 60 (peak inrush current; 4ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	151 (idle) 251 (maximum measured) 780 (system rated)
	VA rating (VA)	154 (idle) 257 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	515 (idle) 855 (maximum measured) 2661 (system rated)
Power supply output power	Rated steady-state power	675W
Temperature range	Operating	50 to 95℉ (10 to 35℃) at 0–3000 ft (0-914.4m) with an altitude de-rating of 1.4℉ (0.75℃) per 1000 ft (304.8m)
	Nonoperating	50 to 109.4℉ (10 to 43℃)
	Shipment	–40 to 140℉ (–40 to +60℃)
Relative humidity (RH; noncondensing)	Operating Shipment	8 to 80% 5 to 100%
Maximum altitude	7000 ft	2133m

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Acoustic noise	Operating minimum	L WAd (bels) 6.5
Airflow (cubic feet per minute)	30 CFM minimum	75 CFM maximum
Remote management	IBM IMM with Virtual Media enabled	

Table 4. Product Information for Cisco Unity Connection Appliances

Current Component	Current Value
Product part number	MCS7845I3-K9-UCC1 MCS7845I3-K9-UCB2
Preload	UCA1A: Cisco Unity Connection 8.0 UCB2: Cisco Unity Connection 7.1
OS included	Yes
Processor	Dual Intel E5540 2.53-GHz; last level cache: 8MB
Memory included	8-GB (four 2-GB DIMM) PC3-10600 1333 MHz, fully buffered DDR-3 RDIMM
Memory maximum	128 GB (64 GB per processor slot)
Memory bus clock	Up to 1333 MHz
Memory technology	Registered PC3-10600 DDR-3 1333-MHz dual-rank DIMM
Multibit error mitigation	Advanced Chipkill ECC
Total DIMM slots	16 (8 per processor slot)
BIOS type	UEFI
Hard disks	Four 300-GB SAS 2.5-in. hot-swap
Hot-swappable bays	8; optionally expandable to 12 bays using IBM extra kit
Hard disk interface type	SAS
Hard disk spindle speed	10,000 rpm
Hard disk seek time	4 ms (average)
Hard disk latency	3 ms (average)
Data transfer rate	Capable of 6 Gbps
Hard disk form size	2.5-inch SFF
RAID controller model	IBM mezzanine ServeRAID MR10i controller
RAID interface	Connected to motherboard
RAID cache	256 MB
BBWC	Yes
RAID level	Configured as two RAID 1 arrays
Ethernet NIC	Dual onboard 10/100/1000
Ethernet connectors	Two RJ-45 connectors on back of server
10BASE-T cable support	EIA Category 3, 4, or 5 UTP (2 or 4 pair) up to 328 ft (100m)
100BASE-TX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)
1000BASE-T cable support	EIA Category 6 UTP (recommended), 5E UTP, 5 UTP (2 pair) up to 328 ft (100m)
Serial ports	1
Parallel ports	0
USB 2.0 ports	6 (2 front, 2 rear, and 2 internal)
Keyboard ports	Use one of the USB ports (PS/2 ports are not provided)
Mouse ports	Use one of the USB ports (PS/2 ports are not provided)
Audio ports	None
VGA ports	1 front and 1 rear
System management ports	RJ-45 for IMM

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8x PCIe non-hot plug slots	4	
Dimensions (H x W x D)	Height: 3.346 in.	Height: 85.2 mm
	Width: • With top cover: 17.465 in. • With front bezel: 18.976 in.	Width: • With top cover: 443.6 mm • With front bezel: 482.0 mm
	Depth: • EIA flange to rear: 27.480 in. • Overall: 28.791 in.	Depth: • EIA flange to rear: 698 mm • Overall: 729 mm
Weight (maximum)	64 lb	29.03 kg
Input requirements*	Rated line voltage: 100–127 VAC; 50 or 60 Hz	
	Input current (Amps)	1.81 (idle) 3.07 (maximum measured) 7.8 (system rated) 60 (peak inrush current; 4ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	213 (idle) 353 (maximum measured) 780 (system rated)
	VA rating (VA)	218 (idle) 362 (maximum measured) 797 (system rated)
	BTU rating (BTU/Hr)	727 (idle) 1206 (maximum measured) 2661 (system rated)
	Rated line voltage: 200–240 VAC; 50 or 60 Hz	
	Input current (amps)	1.1 (idle) 1.84 (maximum measured) 3.9 (system rated) 60 (peak inrush current; 4ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	224 (idle) 372 (maximum measured) 780 (system rated)
	VA rating (VA)	229 (idle) 381 (maximum measured) 797 (system rated)
	BTU rating (BTU/Hr)	764 (idle) 1268 (maximum measured) 2661 (system rated)
Power supply output power	Rated steady-state power	675W
Temperature range	Operating	50 to 95℉ (10 to 35℃) at 0–3000 ft (0–914.4 m) with an altitude de-rating of 1.4℉ (0.75℃) per 1000 ft (304.8m)
	Nonoperating	50 to 109.4℉ (10 to 43℃)
	Shipment	–40 to 140℉ (–40 to +60℃)
RH; noncondensing	Operating Shipment	8 to 80% 5 to 100%
Maximum altitude	7000 ft	2133m
Acoustic noise	Operating minimum	L WAd (bels) 6.5
Airflow (cubic feet per minute)	30 CFM minimum	75 CFM maximum
Remote management	IBM IMM with Virtual Media enabled	

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Table 5. Product Information for Cisco Unified Contact Center Express Appliance

Current Component	Current Value	
Product part number	MCS7845I3-K9-CXA1	
Preload	CXA1: Cisco Unified Contact Center Express 8.0	
OS included	Yes	
Processor	Single Intel 5540 Quad-core 2.53-GHz; last level cache: 8 MB	
Memory included	6-GB (three 2-GB DIMM) PC3-10600 1333-MHz, fully buffered DDR-3 RDIMM	
Memory maximum	128 GB (64 GB per processor slot)	
Memory bus clock	Up to 1333 MHz	
Memory technology	Registered PC3-10600 DDR-3 1333-MHz dual-rank DIMM	
Multibit error mitigation	Advanced Chipkill ECC	
Total DIMM slots	16 (8 per processor slot)	
BIOS type	UEFI	
Hard disks	Four 146-GB SAS 2.5-in. hot-swap	
Hot-swappable bays	8	
Hard disk interface type	SAS	
Hard disk spindle speed	10,000 rpm	
Hard disk seek time	4 ms (average)	
Hard disk latency	3 ms (average)	
Data transfer rate	Capable of 6 Gbps	
Hard disk form size	2.5-inch SFF	
RAID controller model	IBM mezzanine ServeRAID MR10i controller	
RAID interface	Connected to motherboard	
RAID cache	256 MB	
BBWC	Yes	
RAID level	Configured as two RAID 1 arrays	
Ethernet NIC	Dual onboard 10/100/1000	
Ethernet connectors	Two RJ-45 connectors on back of server	
10BASE-T cable support	EIA Category 3, 4, or 5 UTP (2 or 4 pair) up to 328 ft (100m)	
100BASE-TX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)	
1000BASE-T cable support	EIA Category 6 UTP (recommended), 5E UTP, 5 UTP (2 pair) up to 328 ft (100m)	
Serial ports	1	
Parallel ports	0	
USB 2.0 ports	6 (2 front, 2 rear, and 2 internal)	
Keyboard ports	Use one of the USB ports (PS/2 ports are not provided)	
Mouse ports	Use one of the USB ports (PS/2 ports are not provided)	
Audio ports	None	
VGA ports	1 front and 1 rear	
System management ports	RJ-45 for IMM	
8x PCIe non-hot plug slots	4	
Dimensions (H x W x D)	Height: 3.346 in.	Height: 85.2 mm
	Width: • With top cover: 17.465 in. • With front bezel: 18.976 in.	Width: • With top cover: 443.6 mm • With front bezel: 482.0 mm
	Depth: • EIA flange to rear: 27.480 in. • Overall: 28.791 in.	Depth: EIA flange to rear: 698 mm Overall: 729 mm

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Weight (maximum)	64 lb	29.03 kg
Input requirements*	Rated line voltage: 100–127 VAC; 50 or 60 Hz	
	Input current (Amps)	1.31 (idle) 2.25 (maximum measured) 7.8 (system rated) 60 (peak inrush current; 4ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	154 (idle) 257 (maximum measured) 780 (system rated)
	VA rating (VA)	157 (idle) 263 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	525 (idle) 875 (maximum measured) 2661 (system rated)
	Rated line voltage: 200–240 VAC; 50 or 60 Hz	
	Input current (amps)	0.74 (idle) 1.23 (maximum measured) 3.9 (system rated) 60 (peak inrush current; 4ms)
	Leakage current (mA)	0.94 (idle; maximum measured; system rated)
	Power (watts)	151 (idle) 251 (maximum measured) 780 (system rated)
	VA rating (VA)	154 (idle) 257 (maximum measured) 797 (system rated)
	BTU rating (BTU/hr)	515 (idle) 855 (maximum measured) 2661 (system rated)
Power supply output power	Rated steady-state power	675W
Temperature range	Operating	50 to 95℉ (10 to 35℃) at 0–3000 ft (0-914.4m) with an altitude de-rating of 1.4℉ (0.75℃) per 1000 ft (304.8m)
	Nonoperating	50 to 109.4℉ (10 to 43℃)
	Shipment	–40 to 140℉ (–40 to +60℃)
Relative humidity (RH; noncondensing)	Operating Shipment	8 to 80% 5 to 100%
Maximum altitude	7000 ft	2133m
Acoustic noise	Operating minimum	L WAd (bels) 6.5
Airflow (cubic feet per minute)	30 CFM minimum	75 CFM maximum
Remote management	IBM IMM with Virtual Media enabled	

Compliance Specifications

- FCC – Verified to comply with Part 15 of the FCC Rules, Class A (US Emissions)
- ICES-003 Class A (Canada Emissions)
- AS/NZS CISPR22 Class A (Australia/New Zealand Emissions)
- CISPR22 Class A (International Emissions)

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- EN55022 Class A (Europe Emission)
- EN55024 (Europe Immunity)
- IEC 61000-3-2 (Europe Emission)
- IEC 61000-3-3 (Europe Emission)
- KN22 Class A (Korea Emissions)
- CNS13438 Class A (Taiwan Emissions)
- GB9254 Class A (China CCC EMC)
- GB4943 (China CCC Safety)
- VCCI-03 Class A (Japan emissions)
- CSA C22.2 No. 60950-1-03 (Canada Safety)
- UL 60950-1 (US Safety)
- IEC/EN 60950-1 (European Safety)
- CE Mark (Low Voltage Directive 73/23/EEC, EMC Directive 89/336 EEC)
- NOM (Mexico Safety)
- KN24 Immunity Series (Korea Immunity)

Table 6. Previously Released Configurations (Cisco MCS 7845-I2)

Previous Component	Previous Value
Product part number	MCS-7845-I2-CCE2 MCS-7845-I2-CCX2 MCS-7845-I2-ECS2 MCS-7845-I2-IPC2 MCS-7845-I2-RC2 MCS-7845-I2-MOB1
Preload	None
OS included	None
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (four 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot-swap
Remote management	IBM RSA II Slimline

Previous Component	Previous Value
Product part number	MCS-7845-I2-ECS3 MCS-7845-I2-CCE3
Preload	None
OS included	None
Processor	Dual Intel E5345 2.33-GHz 2x4M L2
Memory	4-GB (four 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot-swap
Remote management	IBM RSA II Slimline

Previous Component	Previous Value
Product part number	MCS-7845-I2-ECS4 MCS-7845-I2-CCE4
Preload	None

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OS Included	None
Processor	Dual Intel E5345 2.33-GHz 2x4M L2
Memory	4-GB (four 1-GB) PC2-5300R
Hard disks	Eight 146-GB SAS 2.5-in. hot-swap
Remote management	IBM RSA II Slimline

Ordering Information

To place an order, visit the Cisco Ordering Home Page and refer to Tables 6 through 8.

Table 7. Ordering Information

Product Name	Ordering Information
Cisco Unified Application Environment	Refer to Cisco Unified Application Environment data sheet at: http://www.cisco.com/en/US/products/ps7058/tsd_products_support_series_home.html
Cisco Unified Communications Manager **Cisco Emergency Responder**	Refer to Cisco Unified Communications Solutions Ordering Guide at: http://www.cisco.com/web/partners/downloads/sell/technology/storage/unifiedcomm/ucs1_og.pdf
Cisco Unified Intelligent Contact Management Enterprise & Hosted **Cisco Unified Contact Center Enterprise & Hosted** **Cisco Unified Contact Center Express** **Cisco Unified IP IVR** **Cisco Unified Customer Voice Portal**	Refer to CCBU Ordering Guide at http://www.cisco.com/web/partners/sell/technology/ipc/integrated-solutions/customer_contact_center.html
Cisco Unity Connection **Cisco Unity** **Cisco Unified MeetingPlace Conferencing** **Cisco Unified MeetingPlace Express** **Cisco Unified Presence** **Cisco Unified Mobility Advantage**	Refer to Cisco Unified Communications Applications Ordering Guide at http://www.cisco.com/web/partners/sell/technology/ipc/integrated-solutions/uca.html

Server Spares

Table 8. Ordering Information for Spare Servers by Application

Application	Spare Part Number
Cisco Unified Application Environment **Cisco Unified Communications Manager** **Cisco Emergency Responder** **Cisco Unified Presence Server**	MCS-7845-I3-IPC1
Cisco Unified Intelligent Contact Management Enterprise and Hosted **Cisco Unified Contact Center Enterprise and Hosted** **Cisco Unified Customer Voice Portal** **Cisco Unified Intelligence Suite** **Cisco Unified E-mail/Web Interaction Manager** **Cisco Unified Contact Center Management Portal**	MCS-7845-I3-CCE1 MCS-7845-I3-CCE2
Cisco Unified Contact Center Express **Cisco Unified IP IVR**	MCS-7845-I3-CCX1 MCS7845I3-K9-CXA1
Cisco Unified MeetingPlace Conferencing **Cisco Unified MeetingPlace Express**	MCS-7845-I3-RC1
Cisco Unity **Cisco Unity Connection 8.0**	MCS-7845-I3-ECS1 MCS7845I3-K9-UCC1
Cisco Unified Mobility Advantage	MCS-7845-I3-MOB1

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Field-Replaceable Spares

Table 9. Ordering Information for Server Spare Parts

Spare Part Number	Description
Spare 146GB 10K SAS drive with 6Gbps controller	**HDD-7835-I3-146=**
Spare 300GB 10K SAS drive with 6Gbps controller	**HDD-7835-I3-300=**
Spare 2GB memory for the MCS-7845-I3	**MEM-7845-I3-2GB=**

Replacement Part Numbers

Table 9 provides the replacement part numbers for those products that are no longer orderable.

Table 10. Replacement Part Numbers

Old Part Number	Replacement Part Number
MCS-7845-I2-CCE2/-CCE3/-CCE4	MCS-7845-I3-CCE1 or –CCE2 (refer to UCCE BOM at http://www.cisco.com/en/US/products/sw/custcosw/ps1844/products_implementation_design_guides_list.html)
MCS-7845-I2-CCX2	MCS-7845-I3-CCX1
MCS-7845-I2-ECS1 **MCS-7845-I2-ECS2** **MCS-7845-I2-ECS3** **MCS-7845-I2-ECS4**	MCS-7845-I3-ECS1
MCS-7845-I2-IPC2	MCS-7845-I3-IPC1
MCS-7845-I2-RC2	MCS-7845-I3-RC1
MCS-7845-I2-MOB1	MCS-7845-I3-MOB1

Warranty Information

Cisco offers a 1-year limited hardware warranty on Cisco Media Convergence Servers. For terms and conditions of this warranty, refer to http://www.cisco.com/en/US/docs/general/warranty/English/1Y1DEN__.html.

Cisco Unified Communications Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications Solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifecycle approach to services can enhance your technology experience to accelerate true business advantage.

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